

ON THE HYMENOPTERA FROM BELGIAN CONGO IN THE CONGO MUSEUM, TERVUEREN

by **P. Cameron**

D^r H. SCHOUTEDEN having sent me for examination the Parasitic Hymenoptera and the Phytophaga from the region of the Congo in the Congo-Museum, Tervueren, I give here a Catalogue of all the species sent to me, with descriptions of those which appear to be undescribed. Our knowledge of the Hymenoptera of west Tropical Africa, as a whole, is not at all so extensive as it is of East Tropical or of South Africa.

PHYTOPHAGA

ORYSSINI

Chalinus purpureiventris sp. n. — Green, the front dark purple, the 2nd and following segments of the abdomen bright purple, the purple on the middle segments running into blue, the keel between the antennæ dark purple, almost black, mandibles black, shining; antennæ black, the scape dark purple in the middle; the flagellum shining, black, slightly tinged with purple, the lower side densely fringed with long white hair; legs dark green, the anterior tibiæ and tarsi dark testaceous, the 4 hinder tibiæ and tarsi darker coloured than the femora; wings fuscous-violaceous, the stigma and nervures black; the apices of both wings have a narrow, almost hyaline border ♂.

Length 11 mill.

Dima, 22nd September (A. KOLLER).

Antennal scape broad, about twice longer than wide, roundly curved inwardly, the upper, inner part strongly, sparsely punctured; the 2nd joint about as long as it is wide at the apex; on the outer side it becomes gradually widened from the base to the apex. Head strongly, irregularly punctured, the cheeks more closely than the front and thickly covered with long white hair; on the vertex is a raised smooth, roundly curved, black keel; below its outer edge, on the sides, in a row, are 3 stout tubercles, bluntly triangular, the upper two nearer to each other than they are to the lower; between, and below the antennæ, is a roundly curved keel, its apex in the middle projecting into a minute tooth; on the lower half of the front are 2 fine keels which converge and unite

below, forming a wide V. Thorax strongly rugosely punctured, the mesonotum more strongly than the rest, the scutellum much more sparsely, especially on the basal half; the median segment closely rugosely punctured, the puncturation on the centre sparser and stronger. 1st abdominal segment closely rugosely punctured, more finely than the median segment, the punctures almost running into reticulations; the purple segments are more weakly and sparsely punctured, especially the 4th and 5th, the apical more strongly and closely punctured than the others. The ventral segments are closely and strongly punctured. Legs strongly punctured, especially the femora; the coxæ more closely and finely punctured, the outer side of the hinder more or less striated. The transverse cubital nervure is faint; the cubitus is widely bullated beyond the recurrent nervure. The pubescence is short, close and white.

EVANIIDÆ

Stephanus xanthocephalus sp. n. — Black, the head pallid yellow, the front with the yellow tinged with rufous (perhaps through discolouration), a broad black band running from the occiput to the posterior tubercles; the 3rd abdominal segment, except in the centre above, slightly more broadly at the apex and entirely below, the rest of the ventral surface and the apical segment entirely rufous; legs black, the apex of the femora (the apical fourth of the hinder), the 4 anterior tibiæ and tarsi, the thickened apical part of the hind tibiæ and the basal joint of the hind tarsi testaceous, tinged with rufous. Antennæ black, the scape testaceous. Wings hyaline, the posterior discoidal cellule smoky, the stigma and nervures black. ♀.

Length 28 mill.; terebra 43 mill.

Dima, 18th September (A. KOLLER).

Front strongly, roundly striated; vertex in front irregularly, more or less roundly striated, the rest more finely, closely transversely striated; the tubercles in an equilateral triangle; the anterior sharper and a little longer than the others. Pronotum a little longer than it is wide at the apex, closely, somewhat strongly striated. Mesonotum shining, the basal half in the centre smooth, the rest irregularly striated, and more or less punctured. Scutellum smooth, weakly, sparsely punctured at the apex. Metanotum almost opaque, not very strongly umbilically punctate, the apex irregularly striated. Pleuræ smooth, covered with a white pubescence, the metapleuræ more densely, than the rest. The narrowed basal part of the abdomen is slightly longer than the rest; it is

very finely and closely striated, more strongly at the apex than at the base. The hind coxæ finely, closely striated; there are 5 teeth on the hind femora, the apical 2 larger, the basal 2 much smaller than the 3rd; the apical is testaceous, being in the centre of the apical coloured part. Wings hyaline, the posterior discoidal cellule smoky; the nervures and stigma black; the basal and apical nervures are complete, black and clearly defined; the transverse median nervure is received very shortly beyond the transverse basal, the recurrent nervure shortly before the transverse cubital; the cubitus is roundly curved.

This is a *Stephanus* as limited by ENDERLEIN (Zool. Anzeiger, XXVIII, 474). The outer submedian cellule is not bounded by a distinct horny nervure behind, except at the base, where the nervure curves roundly downwards; the cubitus is roundly curved backwards and becomes faint towards the apex. There are 3 longitudinal nervures, which is one of the points separating *Stephanus* from *Parastephanus*.

Fœnatopus flavicollis sp. n. — Black, the face, clypeus, oral region, mandibles except the apex, lower three-fourths of outer orbits, the prothorax except in the centre above, the black central line narrowed towards the apex, the meso- and metapleuræ, antennal scape and pedicle and the tegulæ yellowish testaceous; the 4 front legs of a paler yellowish testaceous colour, the lower side, base and apex of the hinder tibiæ of a more reddish testaceous colour; the vertex from the occiput to the front of the ocelli reddish; palpi pallid yellow; wings hyaline, the stigma pallid, the nervures of a darker testaceous colour; the radius is almost straight at the stigma, then obliquely sloped. The 3 teeth on the femora are of about the same size, the basal with a long oblique slope. Frontal tubercles semicircular, the edges raised, the anterior smaller than the 2 posterior; the space between them with stout oblique striæ running from the ocellus; the vertex covered with rounded striæ. ♂.

Length 8 mill.

Dima, 22nd September (A. KOLLER).

Seen from the sides the frontal tubercles appear triangular. The 3rd and 4th joints of the antennæ are dark testaceous. The collar becomes gradually widened from the base to the apex, it being there about one fourth wider than it is long. Mesonotum depressed at the base and margined there by a roundly curved keel; at its apex is a distinct transverse furrow; the centre is bounded by shallow, oblique furrows, the space between being irregularly

striated. Scutellum smooth, the sides irregularly punctured. Metanotum not very closely nor deeply umbilically punctate. Abdominal petiole and hinder coxæ opaque, finely closely striated; the hinder ventral surface of the abdomen brownish or piceous.

This is a *Fœnatopus* as limited by ENDERLEIN (Zool. Anzeiger, XXVIII, 476), the outer submedian cellule being indicated by a nervure in front, open at the apex and behind.

Fœnatopus piceicornis sp. n. — Black, shining, a moderately broad pallid yellow line on the lower three-fourths of the outer orbits, extending on to the malar space; tips of mandibles rufo-testaceous, the palpi dark fuscous; the antennæ piceous, darker towards the apex; the 4 anterior tibiæ and tarsi pallid testaceous, the tibiæ darker behind; the hinder trochanters, apex of tibiæ and the tarsi rufo-testaceous; wings clear hyaline, the stigma and nervures black; the cubitus pallid testaceous. Hind femora with 3 teeth, the apical 2 of about the same size, the basal smaller and separated from the 2nd by a less distance than the latter is from the 3rd. ♀.

Length 13 mill.; terebra 12 mill.

Dima, 26th September (A. KOLLER).

The cubitus originates from the apex of the thickened basal part of the radius with which it forms an acute angle; there are 2 closed basal cellules; the radial is closed at the apex, but not the cubital, the cubitus becoming faint before the apex of the wing; there is a stump of a discoidal nervure not quite so long as the lower nervure. Vertex from the ocelli strongly, closely transversely striated, the anterior striæ stronger and more roundly curved than the hinder; the front more strongly striated, the striæ more or less curved. Ocellar space smooth in the centre, the sides finely striated. Frontal tubercles rufous, bluntly triangular. Pronotum as long as it is wide at the apex, smooth, the base bituberculate above. Basal half of mesonotum strongly irregularly reticulated, the sides at the apex umbilically punctate, the middle smooth. Scutellum umbilically punctate, the centre with a large smooth space which becomes gradually widened towards the apex. Metathorax umbilically punctate, but not closely or strongly. The narrowed basal part of the abdomen is as long as the rest of the abdomen and is finely, closely striated.

This species, like the others here described, is a *Fœnatopus* as limited by ENDERLEIN (Zool. Anzeiger, XXVIII, 476).

BRACONIDÆ

BRACONINÆ

Iphiaulax FOERST. — This genus, so numerous in species in tropical lands, is represented by some large and handsome species.

SYNOPSIS OF THE SPECIES

- 1 (4) Wings fuscous with 3 large yellowish-hyaline clouds.
- 2 (3) 2nd abdominal segment black, a reddish line down its centre and on the 4th; head yellow with the front and vertex black, the hind femora and tarsi black; ovipositor twice longer than the body **rufo-lineatus**.
- 3 (2) 3rd abdominal segment rufous, the 4th without a rufous line; head pallid yellow and apical 4 joints of hind tarsi rufous; the ovipositor as long as the body.
lukombensis.
- 4 (1) Wings fuscous, with, at the most, only small hyaline clouds near the stigma.
- 5 (6) Small (3 mill.), the stigma fuscous, no hyaline clouds in it; the body and legs testaceous **Maynei**.
- 6 (5) Large (at least 7 mill.), the stigma testaceous or vermilion red and with small hyaline clouds near it.
- 7 (8) Head testaceous, the body pale vermilion red; ovipositor half the length of the abdomen, the latter with the 5 basal segments striated **corallinus**.
- 8 (7) Head more or less black.
- 9 (10) Body vermilion red, the stigma bright red, the abdomen as long as the head and thorax united and wider than it; the area on 2nd segment striated. **coccineus**.
- 10 (11) Testaceous, stigma pale ochraceous, abdomen longer than the head and thorax, ovipositor longer than the body, the area on 2nd abdominal segment smooth.
sexfasciatus.
- 11 (10) Black, the thorax more or less red, or yellow; the hind legs black.
- 12 (17) Head and mesothorax yellow.
- 13 (16) Prothorax black.

- 14 (15) 3rd abdominal segment striated to near the apex, basal half of 4th striated, apical fourth of antennæ fuscous, the scape black **congoensis.**
- 15 (14) 3rd abdominal segment smooth, as is also the 4th; apical half of antennæ fuscous, the scape mostly yellow.
- Koller.**
- 16 (13) Prothorax entirely yellow, basal half of 2nd abdominal segment smooth, its keel not dilated triangularly at the base **dimaensis.**
- 17 (12) Head, pro- and mesothorax red; metathorax red, middle legs red, the hair on the ovipositor not longer on the apex than on the middle; 1st abdominal segment marked with rufous in the centre. •
- 18 (19) Eye-orbits narrowly and oral region and malar space yellow. **tinctimaculatus.**
- 19 (18) Eye-orbits, oral region and malar space black. **Stanleyi.**

Iphiaulax rufo-lineatus sp. n. — Rufo-testaceous, the abdomen of a deeper rufous tint than the thorax, antennæ, almost the apical half of the mandibles, the front, the mark rounded below, the vertex to the end of the eyes, the mark slightly dilated in the middle, 3 marks on the apex of the 2nd abdominal segment, the lateral wider and longer than the central and rounded at the base, the central wider than long, of equal width, transverse, and the 3rd and following segments black; the 3rd with the furrow, an irregular mark on the sides at the base, a line down the middle of the 3rd and 4th rufo-testaceous, the basal 4 ventral segments cream-white; an irregular black line down the middle of the 1st and 2nd and a small spot on the side of the apex of the 2nd; the hypopygium black, a triangular yellow mark at the base. Sheath of ovipositor almost bare. Wings yellowish hyaline: a fuscous cloud extends from shortly behind the transverse median nervure and posterior part of the transverse basal to the parastigma, another runs from near the base of the radius to the apex, but having an irregular cloud, commencing shortly beyond the apex of the stigma, running across the 2nd transverse cubital, more broadly on the outer than on the inner side, and extending almost the length of the transverse cubital into the discoidal; its inner side is dilated at the radius and cubitus, the outer rounded; the hind wings smoky, the basal half entirely in front, the base and an oblique pyriform cloud near the middle, extending on to the cubitus, but not to the hinder part of the wings and a pyriform cloud in front commencing near the base of the radius and extending more than

half way across, the nervures yellow in the light, black in the dark part of the wings, the stigma yellow to shortly beyond the base of the radius, the rest black; the recurrent nervure is received in 1st cubital cellule, clearly separated from the transverse cubital. Basal 4 abdominal segments closely, strongly striated, the striæ stronger on the basal segments; the area on the 2nd smooth, small, triangular, wider at the base than it is long and bordered by a strong striated depression; the suturiform articulation narrow, deep, crenulated, not cleft laterally; there is a narrower crenulated furrow on the base of the 4th and 5th segments. ♀.

Length 13 mill.; terebra 34 mill.

Dima, 20th September (A. KOLLER).

Face rugosely punctured, sparsely covered with stiff black hair. Temples broad, rounded behind, sparsely covered with pale hair. The 4 front legs coloured like the thorax, as are also the hind coxæ and trochanters, the rest of the hind legs black except the knees and the spurs and apices of the tarsal joints; the tibiæ and tarsi are densely pilose. The head is paler than the thorax. Palpi long, testaceous, densely covered with white hair. The parapsidal furrows are obsolete.

Iphiaulax lukombensis sp. n. — Rufo-testaceous, the head paler, more yellowish in tint, the antennæ, apex of mandibles, stemmaticum (the black not extending over the ocelli), the antennæ, the 3rd and following segments of the abdomen, the hind tibiæ and the basal joint of the hind tarsi to near the apex, black. Wings with 3 yellow and 3 fuscous clouds, the basal yellow cloud extending to the innerside of the transverse basal nervure and outer of the transverse median, the middle from the parastigma to the apex of the 1st abscissa of the radius, touching the top of the cubitus and leaving a small triangular yellow part at the base of the radial cellule, and a longer, narrow one outside the 1st transverse cubital nervure, the 3rd is roundly, irregularly narrowed on the outerside, straight and irregular on the inner, roundly, narrowed posteriorly, on either side of the 2nd transverse cubital nervure in the discoidal cellule where it reaches the apex of the anterior third; the hind wings are yellow to the base of the radius and cubitus and there is an irregular yellow cloud shortly before the middle, the base trilobate, the apex rounded inwardly. Basal 3 segments of the abdomen somewhat closely striated, except the basal area of the 2nd, which is small, almost semicircular, and the area at the sides of the base of the 3rd. There are narrow, crenulated furrows on the apex of the 3rd and 4th and a smooth one on the apex of the 5th. ♀.

Length 12 mill.; terebra 10 mill.

Lukombe, 16th October (A. KOLLER).

Comes near to *I. bifasciatus* SzÉp. from Sierra Leone.

Iphiaulax Maynéi sp. n. — Rufo-testaceous, the back of the abdomen darker in the centre, the flagellum and the apical joint of the tarsi black; wings fuscous, highly iridescent, the stigma fuscous; radial cellule short, the radius reaching half way between the stigma and apex; the recurrent nervure received clearly in the apex of 1st cubital cellule. Basal 5 abdominal segments closely, rather strongly striated; the area on 2nd segment small, wider than long, smooth and with a keel which reaches to the apex of the segment; the basal furrows have curved lateral branches on the 2nd, 3rd and 4th. Parapsidal furrows deep, the mesonotum clearly trilobate, the furrows uniting at the base of the apical fourth. ♂.

Length 4 mill.

Congo da Lemba, April (R. MAYNÉ).

Antennæ stout, 47-jointed, almost bare, the flagellum of almost equal thickness. Malar space one third of the length of the eyes. Temples as long as the top of the eyes.

Iphiaulax corallinus RITS. — The ♂ only of this species has been described. In the collection are 2 females collected by Mr. CABRA, which agree fairly well with the description of *I. corallinus* (Tijdschr. voor Ent., XVII, 5). The larger example is 9 mill. long, the ovipositor being nearly 3 mill. The species belongs to the group of *coccineus* and has no defined area on the base of the 2nd abdominal segment; the oblique lateral furrows on it and the suturiform articulation are wide and closely, strongly striated; there are narrow transverse furrows on the apices of the 3rd, 4th and 5th. The pubescence on the head, metanotum and pleuræ is long, dense and white, sparser and shorter on the rest of the body. The head wants the black on the top found in *coccineus*, the wings at and behind the stigma are more or less hyaline, the costa and stigma are paler in colour, the latter also not being black at the apex, but uniformly coloured, and the basal 4 abdominal segments are striated, the 5th being also striated, but much less strongly.

Iphiaulax coccineus BÉ; *Bracon coccineus*, BRULLÉ, Hymén., IV, 428; cf. CAMERON, l. c., IV, 52.

Dima, 15th September (A. KOLLER).

A bright coral red form, with only the antennæ, front, vertex

and upper half of the outer orbits black. The wings are of a deeper fuscous black colour than usual; the stigma narrowly black at the apex, broadly so at the base.

Iphiaulax sex-fasciatus n. sp. — Rufo-testaceous, the antennæ, tips of mandibles, front, vertex, occiput and slightly more than the upper half of the outer orbits black; wings fuscous, the basal two-thirds of the stigma ochraceous yellow, the apex and nervures black; a hyaline cloud in the costal nervure in the apical half, reaching to the nervure in front, but not at the apex and behind, the greater part of the 1st cubital cellule, a small pyriform cloud below its apex, outside the recurrent nervure, a cloud outside the posterior discoidal cellule, extending more narrowly across the anal nervure and a small one on the inner, anterior part of the transverse median nervure; there are 2 distinct bullæ on the 2nd transverse cubital nervure; the hind wings are unclouded. Abdomen smooth; the centre of the 2nd segment striated; all the furrows are crenulated; the area on the 2nd segment is smooth, moderately large; triangular; there are crenulated furrows on the base and apex of the 3rd and 4th, with a crenulated, apical branch on the outer apical part; there is a weaker furrow on the base and apex of the 5th. ♀.

Length 10 mill.; terebra 10 mill.

Kitobola (ROVERE).

Temples as long as the eyes, obliquely narrowed, the occiput transverse. Face aciculated and punctured and covered with white hair. Tarsi closely, strongly spinose, especially at the apices of the joints.

Iphiaulax congoensis sp. n. — Black, shining, the head pallid yellow, as are also the mandibles except at the apex; the palpi of a more rufous tinted yellow; apical half of antennæ rufo-fuscous; wings fuscous, tinged with violaceous, the nervures and stigma black, the 2nd abscissa of radius slightly longer than the 3rd; the transverse median nervure not quite interstitial, being received shortly beyond the transverse basal; the fore third of the 2nd transverse cubital nervure straight, slightly oblique, the rest roundly curved backwards. 1st abdominal segment smooth, a strong keel down its middle; the 2nd, 3rd, and basal three-fourths of the 4th, strongly striated, a keel down the centre, that on the 2nd with a small, smooth triangular dilatation at the base. Scape fringed with long white hair. Anterior legs densely covered with pale, the 4 hinder with black hair. Metanotum and the sides of basal abdo-

minal segment covered with long black hair. The suturiform articulation is brown and crenulated; it is the only furrow. ♂.

Length 15 mill.

Dima, 20th September (A. KOLLER).

Temples wide, broadly rounded behind, as long as the eyes; the occiput broadly rounded inwardly. Face smooth, depressed, the sides forming a broad border to the eyes.

Ipchiaulax dimaensis sp. n. — Black, shining, the head, palpi, mandibles except at apex and the prothorax pale fulvous yellow, as are also the fore legs; the antennæ rufous from before the middle; wings deep fuscous, slightly tinged with violaceous, the stigma and nervures black, the 2nd and 3rd abscissæ of radius equal in length; the 2nd transverse cubital nervure bordered with hyaline; the recurrent nervure not quite interstitial. Abdomen smooth, neither punctured nor striated, the transverse and oblique furrows being also smooth; there is a keel down the middle of the raised central part of the 1st abdominal segment; there is a stout keel, running from the base to the raised apical part and narrowed gradually, but not much, towards the apex down the middle of the 2nd; a small triangular one on the base of the 3rd and a still smaller one on the base of the 4th. The centre of the face is raised, from near the top, and is united to the antennæ by a keel; its lower half is narrowed, but not much and is separated from the clypeus by a distinct furrow, ♂.

Length 11 mill.

Dima, 20th September (A. KOLLER).

The middle and sides of the basal 4 abdominal ventral segments are white.

A species very similar to *I. fulvicollis* CAM. in size and colouration; but from which it may readily be separated by the difference in the sculpture of the abdominal segments; in *fulvicollis* the 2nd is striated and its keel is triangularly dilated at the base, and the suturiform articulation is crenulated, while the prothorax is entirely yellow, not with the apex of the propleuræ black.

Ipchiaulax Kolleri sp. n. — Black, the head, mandibles except at the apex, and the greater part of the antennal scape pale yellow, the palpi of a more rufous yellow than the head; the prosternum, fore coxæ and trochanters fuscous, the fore femora and tibiæ yellowish testaceous, the latter darker coloured than the former,

especially towards the apex; more than the apical half of the antennæ brownish red; wings fuscous violaceous, the stigma and nervures black; the 2nd and 3rd abscissæ of the radius equal in length; the transverse median nervure interstitial, the recurrent nervure almost so. 1st abdominal segment smooth, a strong keel down the middle, with a shorter, less distinct one on either side; the 2nd segment strongly striated, a keel down the centre, its base forming a small, smooth, almost semicircular plate; the 2nd broadly, more finely striated on the basal half, this striated part bordered laterally by an oblique, oval depression. Sutureform articulation closely crenulated and without a lateral branch; it is the only transverse furrow. ♂.

Length 14 mill.

Dima, 4th September (A. KOLLER).

Temples broad, rounded, as long as the eyes, the occiput transverse. In the centre of the lower half of the face is an area bounded above by a broad transverse keel, laterally by a narrower one which curves outwardly below to the outer edge of the clypeus.

***Iphiaulax tincticanaliculatus* sp. n.** — Black, the thorax and 4 front legs red; the oral region, the mandibles, except the apex, malar space and lower third of outer orbits, yellow, slightly tinged with rufous, the black lower part of the outer orbits projecting downwards in the middle; a narrow, yellowish line round the top of the eyes; palpi pallid yellow; the centre of the 1st abdominal segment broadly and the furrows rufous; wings fuscous violaceous, the stigma and nervures black the 3rd abscissa of radius slightly longer than the 2nd; the recurrent nervure interstitial. 1st abdominal segment smooth; the 2nd closely, distinctly, but not very strongly striated between the outer depression, the 3rd more finely and closely striated, the striæ not reaching to the lateral depressions; there are distinct crenulated furrows on the base and apex of the 2nd to 5th abdominal segments, the basal on the 2nd to 4th with apical lateral branches; there is no keel or area on the base of the 2nd segment. ♀.

Length 22 mill.; terebra 27 mill.

Lukombe, 16th October (A. KOLLER).

Face opaque, aciculated, sparsely haired; the clypeus above margined by a fine keel. Mesonotum flat from the basal slope; without any indication of furrows. Temples broad, roundly obliquely narrowed. Sheath of ovipositor bare. The middle tibiæ and tarsi are infuscated. The black ventral marks are large.

Iphiaulax Stanleyi sp. n. — Black, the thorax, anterior legs, middle coxae, trochanters, femora and base of tibiae red, the fore tibiae and tarsi infuscated in front; the 1st abdominal segment broadly dark red in the middle; the lower part of the malar space and clypeus edged with red; mandibles of a deeper red, the teeth black; palpi reddish testaceous, covered with white pubescence; wings fuscous violaceous; the recurrent nervure almost interstitial. 1st abdominal segment smooth, the 2nd finely striated to the lateral furrows, which, at the base, are more strongly transversely striated; the apex is smooth; the 3rd is more finely striated, weaker and more irregularly on the outerside than in the centre and reaching to the apex; there are wide, closely crenulated furrows on the base and apex of the 3rd to 5th segments, with smooth apical lateral furrows; the ventral surface white, with moderately sized black lateral marks on the segments. Sheath of ovipositor pilose, the pile short and black on the basal three-fourths, longer, denser and white on the apical. Temples wide, not very oblique. Occiput transverse. ♀.

Length 17 mill.; terebra 23 mill.

Léopoldville.

Bracon lembaensis sp. n. — Testaceous, the head lighter in tint than the rest; the flagellum of antennae black, the basal joints fuscous below; there are 33 joints; wings hyaline, highly iridescent, the stigma fuscous, the nervures darker coloured; the recurrent nervure received half its length from the transverse cubital; the 3rd abscissa of radius as long as the basal 2 united. Abdomen finely rugose, the basal 3 segments almost striated; the area on 2nd segment almost semicircular, large, its apex reaching to the base of the apical third of the segment, the furrow bounding it weakly crenulated; these are no lateral furrows; the suturiform articulation is the only transverse one and it is narrow, ♀.

Length 3 mill.; terebra 1 mill.

Congo de Lemba, April (R. MAYNÉ).

Temples half the length of the top of the eyes, roundly narrowed, the occiput transverse. Abdomen a little wider than the thorax and as long as it. The antennae are longer than the body and hardly taper towards the apex.

SPATHIIN.E.

Rhopalospathius gen. nov. — Head large, cubital, the front and vertex widely, deeply depressed, the sides raised into broad, rounded lobes; temples broad, the vertex and cheeks margined. Mesonotum very distinctly trilobate; the lateral widely separated by

a depression, slightly shorter than the anterior from which they are clearly separated by the latter being depressed. Scutellum flat, its base with a wide crenulated border. Metanotum rather flat, only slightly sloping towards the apex, closely rugosely punctured; the spiracles small, oval. Mesosternum bordered by a narrow, but distinct, almost smooth, furrow. Wings with 3 cubital cellules, the radius issuing from the middle of the stigma; nervellus widely post-furcal; the recurrent nervure interstitial, as is also the anal. The 3 transverse nervures in the hind wings are all united. 1st abdominal segment forming a petiole, but not much separated from the 2nd; it is cylindrical, slightly, gradually widened towards the apex and is closely, transversely striated; it is almost as long as the following 3 united; there is a narrow, smooth, roundly curved suturiform articulation. Legs long, slender; the 4 front tarsi about 3 times longer than the tibiæ; the calcaria and claws minute.

This genus can only be referred to the *Spathiinae* and to the Tribe *Spathiini*. Its closest ally known to me is *Habnoba* CAM. from Borneo; the latter may be known by the longer, narrower hind coxæ, which are 4 times longer than thick and of equal thickness, linear, not oval viewed laterally; the front and vertex are not deeply depressed in the middle and otherwise is easily separated by the radial cellule in the hind wings being divided by a transverse nervure, and the 2nd cubital cellule is longer — as long as the 3rd; the nervellus is almost interstitial.

Rhopalospathius aurantieiceps n. sp. — Black, the head and prosternum pale orange yellow; the apical three-fourths of the antennæ reddish brown; the base of mandibles broadly and the palpi testaceous, the fore trochanters at the base and the greater part of the femora rufo-testaceous; wings dark fuscous violaceous, the stigma and nervures black; the basal abscissa of the radius roundly curved, about two-thirds of the length of the 2nd, the 3rd about twice the length of the basal 2 united. The recurrent nervure interstitial. ♀.

Length 18 mill.; terebra broken.

Dima, 15th September (A. KOLLER).

Smooth, shining, the centre of the basal half of the middle lobe of the mesonotum with an irregularly crenulated furrow, the base of the rest closely reticulated, the sides striated, the striæ curved at the base. Metanotum closely longitudinally striated in the centre, the striæ running into reticulations; the sides closely transversely striated. The top and base of metapleuræ smooth, the rest irregularly closely reticulated, the lower part punctured in front of the

Smooth, shining. Face sparsely, the palpi more closely covered with white hair. Basal 4 ventral segments pallid yellow. On the larger specimen there is a furrow, dilated at the apex, extending from the base to shortly beyond the middle of the 2nd abdominal segment, and a curved one on the basal half of the 2nd. Sheaths of ovipositor almost bare.

MACROCENTRINÆ.

Biolo gen. nov. — Wings with 3 cubital cellules, the radial cellule long, wide, reaching to the apex of the wing, the radius issuing from the basal fourth of the stigma; the 1st cubital and discoidal cellules continuous through the wide bullating of the nervures; the nervellus interstitial; the 1st abscissa of cubitus thickened, roundly curved; the recurrent nervure received in 2nd cubital cellule; anal nervure issuing from near the bottom, not interstitial; there is a long narrow radial cellule in the hind wing; the costal cellule is long and narrow to near the apex, where the nervure bends obliquely downwards and is continued obliquely to the apex; the basal cellule is large, triangular. Eyes large, parallel, the malar space small. Clypeus clearly separated, its apex transverse, obliquely sloped below. Ocelli large. Occiput not margined. Parapsidal furrows distinct, uniting at the apex. Scutellum not margined. Abdomen twice longer than the head and thorax united, compressed from the 3rd segment and lengthened downwards, sabre-shaped, the basal 2 almost cylindrical, of almost equal length, each almost as long as the following 2 united, the ovipositor longer than the body. Legs long, the fore tarsi longer than the other parts united, the metatarsus as long as the tibiæ; spurs minute; the hind coxæ 4 times longer than thick.

The occiput is roundly, broadly incised. Mandibles bidentate, the upper tooth longer than the others. The 2nd cubital cellule is, in front, 3 times, behind 4 times longer than wide. Hypopygium bluntly cultriform.

This genus belongs to the *Macrocentrini* as defined by ASHMEAD (Bull. U. S. Nat. Mus., XXV, 118). It comes near to the African genus *Dicramoneura* KRIECH., which may be known by the nervellus being largely post-furcal; and the median and submedian nervures are thickened, while in my genus it is only the basal abscissa which is thicker than the others. The 2nd cubital cellule is much longer and of more equal width throughout than it is in *Campocentrus*, in which the basal abscissa of the cubitus is not curved forward at the base, and the radius issues from the middle of the stigma, the latter also being wider compared with the length.

reticulations. 1st abdominal segment opaque, closely reticulated, more finely so at the apex, and more or less striated; the 2nd segment finely, closely striated, the base and centre more broadly, smooth and shining.

Rhopalospathius erythrothorax sp. n. — Black, the thorax, oral region, malar space, lower third of outer orbits, basal half of mandibles and the 4 anterior legs, red; the palpi of a darker red and densely covered with white pubescence; wings fuscous, tinged with violaceous, the nervures and stigma black. ♀.

Length 23; terebra 25 mill.

Dima, 22nd September (KOLLER).

Face rugosely reticulated, more strongly below than above, the lower part laterally appearing striated. The raised lateral part of the vertex with roundly curved striæ. Mesonotum smooth; the central depression irregularly longitudinally striated; at the base the striæ are finer and run into reticulations; the part at the base of the lateral lobes is stoutly longitudinally striated. Metanotum transversely reticulated, the basal half more finely than the apical. Pro- and mesopleuræ smooth, the base below the middle with a smooth triangular projection, the rest closely rugosely reticulated. Base of 1st abdominal segment closely longitudinally reticulated to shortly beyond the middle; the rest closely striated, the striæ intertwining; the 2nd segment closely longitudinally striated to near the apex, the striæ becoming finer and closer towards the apex; the sides bear white, longish, out-standing hair; the rest of the abdomen is smooth, shining and covered with a white pile.

As compared with *R. auranticeps*, this species has the striæ on the base of the 2nd abdominal segment more clearly defined into a triangular area; but the lateral furrows are not so distinct; the sides of the front and vertex are not quite so prominently raised; the fore tibiæ, on the outerside, bear short, black spines.

Exobracon rufus sp. n. — Dark rufous, the head pallid yellow, the antennæ, apex of mandibles, and legs, except the fore coxæ, base of middle broadly and of the posterior narrowly, black and all the trochanters narrowly, black; palpi dark red; wings uniformly dark fuscous, tinged with violaceous, the stigma and nervures black, the 3rd abscissa of radius slightly shorter than the 2nd; the transverse median nervure received shortly beyond the transverse basal, the recurrent nervure near the apex of 1st cubital cellule. ♀.

Length 12-17 mill.; terebra a little longer than the body.

Dima, 15th September (A. KOLLER.)

Eiolo curvinervis sp. n. — Rufo-testaceous, the stematicum and apex of mandibles black; wings hyaline; the stigma and nervures rufo-testaceous, the base of cubitus thickened, roundly curved at the base; the 1st transverse cubital nervure from near the radius, the apex of the 1st abscissa of the cubitus narrowly, the 2nd more broadly at the base and the fore part of the recurrent broadly, bullated, the 1st and 2nd cubitals and the 2 discoidals being thus confluent; the 3rd abscissa of the radius is roundly curved and longer than the basal 2 united. ♀.

Length 17 mill.; terebra 22 mill.

Kasai : Eiolo (WÆLBROECK), 16th January.

Smooth, shining, the mesonotum and scutellum weakly, the metanotum coarsely rugosely punctured.

Zele maculiceps sp. n. — Testaceous, flagellum of antennæ, stematicum, tips of mandibles and ovipositor black; wings hyaline, the stigma, costa and nervures black, the base of costa and parastigma testaceous. Densely covered with white pubescence. Ovipositor as long as the shorter spur of the hind tibiæ, which have the apex and the hind tarsi infuscated. Face strongly, but not very closely punctured. Mesonotum distinctly, but not very closely or strongly punctured; the furrows deep, weakly crenulated. Mesopleuræ smooth above, below the furrow (which is wide, shallow and curved) closely punctured. The metanotum is closely and more strongly punctured, appearing almost reticulated. The 1st abscissa of the radius is half the length of the 2nd. The apical joints of the antennæ are dark testaceous, the apices of the joints annulated with black. ♀.

Length 9 mill.

Uerré (DE BAUW).

The front legs are paler than the others.

RHOADINÆ.

Zombrus Marshall. — This genus (= *Trimorus* KRIECH.) appears to be well represented in Tropical and South Africa. The Congo species may be separated as follows.

- 1 (2) Pro- and mesothorax and legs black; head yellow. **flaviceps.**
- 2 (1) Thorax and legs not black, head not yellow.
- 3 (6) Head red.
- 4 (5) 1st abdominal segment striated throughout, a stronger keel in the centre, the striæ on 2nd not extending beyond the suture, ovipositor as long as the abdomen. **melanopterus.**

- 5 (4) 1st abdominal segment with the centre only striated, the base und apex smooth, the striæ extending beyond the suture, ovipositor shorter than the abdomen.

nigripennis KRIECH.

- 6 (3) Head black above.

- 7 (8) Face black, the outer orbits black to the bottom.

erythrostromus.

- 8 (7) Face red, lower third of outer orbits red. *tuberculatus*.

For a Synopsis of the South African Species of *Zombrus*, see my paper in the Zeitschr. f. Naturwiss. 1909, p. 445.

Zombrus flaviceps sp. n. — Rufous, the head yellow, the antennæ, tips of mandibles, pro- and mesothorax and legs, except the hind coxæ, with their spines, the palpi and tips of mandibles, black; there is a flat spiniform small plate between the antennæ; the upper coxal spine long, curved, narrow, the base dilated, the rest narrowed, but not much, towards the apex; the lower tooth about one fourth of the length of the upper and stouter compared with the length. Wings dark fuscous violaceous, the stigma and nervures black, ♀.

Length 26 mill.

Mayumbe (CABRA).

Head, pro- and mesothorax smooth, the face covered with long black hair. Pronotum coarsely longitudinally reticulated. Metanotum somewhat strongly reticulated and punctured, the sides more or less transversely striated. Mesosternal furrow closely crenulated; the furrow at the apex of the mesopleuræ more strongly so. There is a triangular space on the upper, basal half of the metapleuræ, its base smooth, the apex finely punctured; the rest closely, strongly, slightly obliquely striated. Abdomen strongly striated, the striæ becoming gradually weaker towards the apex; the area on 2nd segment large, its basal half gradually, roundly narrowed to a bluntly rounded point, the apex with the sides rounded; its narrowed basal half bounded by stout, oblique, clearly separated punctures; the sides of the segment are finely irregularly punctured and bear some striæ; the transverse sutures are closely crenulated. The centre of the basal slope of the 1st abdominal segment is bounded by stout keels, which run on to the middle of the segment. Tibiæ and tarsi densely pilose; the apices of the tarsal joints spinose.

The apical abdominal segments are absent but the specimen seems to be a ♀.

Zombrus melanopterus sp. n. — Rufous, the basal two-thirds of the antennæ, apex of mandibles, hind tarsi and sheath of ovipositor, black; the apical third of antennæ yellowish-white; wings blackish, tinged with violaceous, the stigma and nervures black; the basal spine of hind coxæ long, curved, extending to the apex, the apical minute, not longer than the base of the other, triangular, smooth shining, the basal segment and the area on the 2nd and the furrow closely strongly striated; there is a stronger keel down the centre of the 1st and one on either side of the middle of the basal slope. Face rugosely punctured, almost reticulated, covered with black hair. There is a stout keel between and above the antennæ, a thinner one on the basal half of the metanotum. ♀.

Length 12 mill.; terebra 5 mill.

Lukombe, 16th October (A. KOLLER).

Face with a distinct covering of black hair; a longer and denser tuft of black hair at the clypeus; the rest of the head and thorax much more sparsely haired and with the hairs paler. Tibiæ and tarsi densely covered with stiff black hair. The metathorax is entirely smooth.

Zombrus nigripennis KRIECH. (*Trimorus nigripennis* KRIECH-BAUMER, Berl. Ent. Zeits., XXXIX, 60.)

What I make out to be this species (described from the Cameroons) is in the collection from Léopoldville. The differences between it and *melanopterus*, its closest ally, I have shown in my table.

Zombrus tuberculatus sp. n. — Rufous, slightly more than the basal half of the antennæ, front, vertex, upper half of outer orbits and the hind tarsi black; the apical half of antennæ yellowish testaceous, a round black spine between the antennæ; the metanotum rugosely punctured, a keel down the basal half; the sides at the apex armed with short, broad, round tubercles; the basal 3 abdominal segments strongly striated, the 3rd more finely than the 2nd which has the striation not so strong as it is on the 1st. Basal spine on hind coxæ long, curved, the apical short, broad, rounded, tubercle-like. Wings uniformly blackish violaceous, the nervures and stigma black. ♀.

Length 13 mill.; terebra 5 mill.

Lukombe, 12th October (A. KOLLER).

Zombrus erythrostromus sp. n. — Rufous, the antennæ except the apex, front, vertex, occiput, outer orbits to the bottom of the eyes, and apical half of mandibles black; wings uniformly

black, tinged with violaceous, the nervures and stigma black. Apex of middle lobe of mesonotum bordered by 3 stout keels, the central longer and stouter than the others. Metanotum strongly punctured. The punctures round and clearly separated, the sides at the apex projecting into broad, short, rounded tubercles. Basal 3 abdominal segments striated, the striæ becoming gradually finer, the apex of the 3rd smooth. Basal spine on hind coxæ long, curved, stout, the lower short, about twice longer than it is wide at the base. Legs and apex of abdomen densely covered with longish white pubescence. ♀.

Length 12 mill.; terebra 4 mill.

Dima, 15th September (A. KOLLER).

Rinamba gen. nov. — Head cubical, margined behind, the temples broad; the front not depressed, the ocelli in a depression, as near to the antennæ as to the occiput. Clypeus transverse. Mandibles wide, bidentate. Malar space nearly as long as the eyes. Antennæ placed shortly above the lower part of the eyes. Parapsidal furrows distinct; there is a crenulated mesosternal furrow. Wings with 3 cubital cellules; the radius issues from shortly beyond the middle; the nervellus widely post-furcal; the recurrent nervure is received in the 1st cubital cellule, at almost the length of the 1st transverse cubital from the apex; anal nervure interstitial. Legs stout, the femora, and especially the hinder, thickened; the spurs minute. Abdomen sessile, longer than the head and thorax united, slightly wider than it, the basal and apical segment narrowed, the others of equal width; the basal segment longer than wide, the 2nd almost square, both opaque, finely rugose. Ovipositor longer than the body.

I can only refer this genus to the *Helconine*; it wants, however, the deep frontal depression of the *Helconini*, while from the *Diospilini* it differs in the abdomen being distinctly longer than the head and thorax united. It will probably form a new Tribe.

Rinamba opacicollis sp. n. — Black, the tibiæ fuscous, paler at the base and apex, the tarsi pale testaceous, the apex of coxæ and the trochanters fuscous; palpi fuscous; wings hyaline, iridescent, the nervures and stigma black. Mandibles and lower part of the malar space rufous. ♀.

Length 4 mill.; terebra 5 mill.

Dima, 22nd September (A. KOLLER).

Face and oral region opaque, closely rugosely punctured; the centre of the front finely longitudinally striated; the lower closely, rather strongly striated, smooth on the inner side below. Prothorax

opaque, finely rugosely punctured. Mesonotum smooth, shining, the furrows striated, the striæ uniting at the central apical depression, which has the apex rounded and does not extend to the scutellum; the central lobe has a smooth furrow down the centre. Scutellum smooth, shining, triangular, bordered by crenulated furrows. Metanotum in the middle finely rugosely punctured, the sides aciculate. Propleuræ finely aciculated-punctured at the base, the middle finely closely reticulated, the apex rather strongly striated. Metapleuræ almost smooth at the base above, the rest striated, almost reticulated, opaque. Basal 2 segments of the abdomen opaque, finely, closely striated, almost reticulated, the basal segment more strongly than the 2nd; the others smooth, shining.

Stirostoma gen. nov. — Wings with 3 cubital cellules, the radius issuing from behind the middle of stigma; nervellus interstitial, recurrent nervure received clearly in 1st cubital cellule, the anal nervure issuing from near bottom, not interstitial. Head not quite cubital, the vertex and cheeks immargined. Eyes large, reaching close to the mandibles, the malar space small. Apex of clypeus transverse, its sides bounded by furrows which converge above. Parapsidal and pleural furrows obsolete. Abdomen long, narrow, the 1st segment fully 3 times longer than wide, slightly longer than the 2nd, which has no area, but has the basal two-thirds irregularly striated; there is a narrow keel down its centre and the sides are smoother and depressed; there is a narrow keel down the middle of the 3rd segment. Legs long, densely haired, the hind coxæ long, fully 3 times longer than wide; the spurs short, the claws small.

If it were not that there is no semicircular opening at the oral region I should have referred this genus to the *Rhogadinae* with which it agrees in the basal abdominal segments being keeled. I am at present unable to refer it to any group outside the *Cyclostomi*.

Stirostoma longicornis sp. n. — Rufo-testaceous, the head paler, more yellowish in colour, the antennæ, apex of the 3rd and the whole of the following abdominal segments and the hind tibiæ and tarsi black; wings yellowish hyaline, a cloud across the transverse basal and transverse median nervure extending from the costa to the posterior border of the wing, wider on the outer than on the inner side of the transverse median; one of about the same width extending from near the base to near the apex of the stigma, then across to the hinder margin, where it is continued round the apex of the wings, where, in the centre, it is wider than the

other clouds, which have ragged edges; on the hind wings are 2 fuscous clouds, one shortly beyond the middle with ragged edges, the other on the apex, and slightly wider. Legs densely pilose, fulvous except on the hind tibiæ and tarsi, on which it is black, the apical joint of the middle tarsi is black; the hind spurs rufo-testaceous. ♂.

Length 22 mill.

Dima, 22nd September (A. KOLLER).

Densely pilose, the hair longish, pale, except on the black parts, on which it is black; the scape of antennæ with long white hair; the base of flagellum sparsely haired, the rest almost bare. 1st abdominal segment irregularly striated in the centre, with a stronger middle stria or keel; the 2nd and 3rd keeled down the centre, the keel on the 2nd with a small basal area.

AGATHIDINÆ

Agathis ornaticeps sp. n. — Rufous, the antennæ, front, vertex, and occiput and outer orbits to near the bottom of the eyes and the hind tarsi, black; wings fuscous, the stigma and nervures black, the former dark fuscous at the base. The sides of the metanotum are bordered by a keel; in the centre are 2 keels, united at the base, which run to the top of the apical slope, then run by a curved branch to join the outer; below they run to the bottom, where they unite, forming a triangular area, smaller than the outer one which is 6-angled, wider above than below; there is a rounded keel outside the spiracles uniting to the apex of the inner keel; the spiracular area is stoutly striated; the others are smooth. Face and mesosternum densely covered with white pubescence. ♂.

Length 8 mill.

Api (LAPLUME), April 1909.

The base and lower part of the mesopleuræ are somewhat strongly and closely, the rest almost smooth; the furrow has weak keels and is shallow. Below the middle of the metapleuræ is a curved keel, on the base; at the apex a longer curved one; on the lower edge is a continuous, stouter keel.

Agathis ornaticornis sp. n. — Rufous, the antennæ black, the apex broadly brownishred; wings fuscous, the stigma and nervures black, a hyaline cloud in the apex of the 1st cubital cellule, commencing at the base of the parastigma, leaving the fuscous basal part a triangle; it extends into the discoidal cellule, outside the recurrent nervure and reaching to the anal nervure; there is

an oval hyaline cloud in the radial cellule at the end of the stigma and extending more than half way into the cellule. Legs coloured like the body, the hind tarsi black. ♀.

Length 10 mill.; terebra 7 mill.

Dima, 15th September (A. KOLLER).

There are 4 keels on the metanotum, the central 2 united at the base and below the apical slope, at the apex; at the top of the apical slope it is united to the outer keel by a curved oblique one; the keel outside the spiracles is curved and stout.

Agathis trifasciatus sp. n. — Rufous, the antennæ and hind tarsi black; the wings fuscous, the base hyaline to the transverse median and transverse basal nervures, a narrow cloud at the parastigma, extending to the anal nervure, in front extending to the 1st transverse cubital, an oval cloud at the end of the stigma, extending into the 3rd cubital cellule, where it is shorter than it is in front, the costa and about the basal fourth of the stigma rufo-fulvous, the rest of the stigma black, the areolet quadrangular, of equal width, longer along the longitudinal than along the transverse nervures; the recurrent nervure is almost interstitial; the hind wings are paler at the base. ♀.

Length 12 mill.; terebra 6 mill.

Mayumbe (CABRA).

There are 3 basal areæ on the metanotum; the central narrow with the base lanceolate, the keels rounded and narrowed; the apex is closed by an oblique keel, behind which are indications of 2 others, and a rounded keel, forming a semicircular area beyond it; there is a closed spiracular area, which projects beyond the apex of the lateral area. Smooth, shining, sparsely haired. The base of the 2nd segment forms a transverse oval area, bounded by smooth furrows.

Braunsia nigriceps sp. n. — Testaceous, the head except below the eyes, antennæ, the apical third of the 3rd and the whole of the following abdominal segments and the hind legs, black; the legs of a paler testaceous colour, the hind femora, tibiæ and tarsi black as well as the hind spurs; wings fuscous, the nervures and stigma black. ♂.

Length 8 mill.

Mayumbe (CABRA).

There is a stout keel down the centre of the basal two-thirds of the metanotum, the sides being also bordered by a keel which

becomes stouter towards the apex; there are 3 or 4 transverse striæ at the top of the apical slope. The 1st and 2nd and the 3rd segment of the abdomen to near the apex are closely, strongly striated; there is a transverse furrow at the base of the apical third of the 2nd segment and a roundly curved one at the base of the 3rd. The longitudinal furrow on the mesopleuræ is smooth; the apex is irregularly crenulated. 2nd cubital cellule in front half the width of what it is behind; the hinder part of the 2nd transverse cubital nervure is narrowed and almost straight.

Braunsia fulvicollis sp. n. — Black, shining, the head and prothorax and fore legs reddish fulvous, as are also the palpi and mandibles; the middle tibiæ fuscous in front; wings uniformly dark fuscous, the stigma and nervures black; the fore half of the 2nd transverse cubital nervure oblique, the hinder straight, not narrowed. Basal 2 abdominal segments and the 3rd to near the apex strongly, closely regularly striated. On the middle of the metanotum is a keel running from the base to the top of the apical slope; there is a weak, curved keel on either side of it, and the sides are margined by a keel. ♀.

Length 10 mill.; terebra 10 mill.

Dima, 23rd September (A. KOLLER).

Antennæ densely covered with short stiff, the legs with longer black hair. The middle tibiæ and tarsi and the apex of the femora are brownish in front.

Xanthomicrodus pallidinervis sp. n. — Testaceous, densely covered with white pubescence; the antennæ, apex of hind tibiæ and the hind tarsi black; wings hyaline, the stigma in front and the costa black, the hinder part of the stigma fuscous, the nervures pale testaceous, the areolet narrowed in front, the nervures roundly curved. Ovipositor as long as the hind spurs, black, brownish at the apex. Metanotum with a large central basal area, followed by 2 rows of areæ of 7 each, the basal row with the areæ squarish, of equal width, the 2nd row with them narrowed towards the apex. ♀.

Length 7 mill.

Kitobola (ROVERE).

Mesonotum sparsely the metapleuræ more strongly and closely punctured.

The species differs from the type of the genus from Cape Colony (*X. iridipennis* CAM.) in the apex of the hind tibiæ and the hind tarsi

being black, and the metanotal areæ are different, the areola being, *e. g.*, shorter and wider and more distinctly bounded by the keels, which form a triangle in *iridipennis*.

It may be useful to give a generic description of *Xanthomicrodus* from the Congo example here described.

Head seen from the front broad, not narrowed below; the malar space distinct, about one fourth of the length of the eyes; 2 keels run from the ocelli to the antennæ. Sides of scutellum margined, the keels becoming stouter towards the apex, where they unite. Metanotum areolated, the basal half with 3 areæ inside the spiracles, the apical with 6; the spiracles about two-and a half times longer than wide. Abdominal petiole about 4 times longer than it is wide at the apex; the ovipositor short, broad. Legs normal; the hind coxæ as long as the 1st and two-thirds of the 2nd abdominal segments; the middle spur two-thirds of the length of the metatarsus; the hinder about one third shorter; claws cleft. Antennæ slightly longer than the body, not tapering much towards the apex. Radial cellule narrow, not reaching to the apex of the wing; the 1st cubital and discoidal cellules not separated, the areolet 4-angled, narrowed in front.

There is no mesosternal furrow, but there is a crenulated band under the raised upper part of the mesopleuræ. The 3rd joint of the antennæ is shorter than the 4th. Palpi moderately long.

In SZÉPLIGETI'S system (Gen. Ins., Bracon. Agathinæ, 117), this genus would run to *Megagthis* KRIECH., which differs from it in the head in front forming a triangle, there is no plate between the antennæ, the scutellum is not margined and the ovipositor is long. At p. 116, *l. c.*, SZÉPLIGETI states that the 1st cubital and the discoidal cellule are not separated; in the fuller description on p. 122, that they are separated.

CARDIOCHILINÆ.

Cardiochelis bifoveatus sp. n. — Dark rufous, the antennæ, centre of front broadly, the vertex, middle lobe of mesonotum, more than the outer half of the lateral and the trophi, black; legs coloured like the body, but darker, and, more particularly, the hinder femora, the hind tarsi being also blackish; wings fuscous, slightly paler at the base, the stigma and nervures black. There is only one closed area on the metanotum; it is shortly appendiculated at the base, then becomes gradually widened into a triangle, then gradually narrowed into a larger triangle, which reaches to the apex. The antennæ are over 40-jointed.

♂ Length 5 mill.

Congo do Lemba, April (R. MAYNÉ).

Smooth and shining, covered with a white pile; the metathorax aciculated, the pleuræ almost punctured. Apex of mesopleuræ crenulated. These are 2 longish foveæ in the centre of middle lobe of the basal half of the mesonotum and a longer, narrower furrow on the lateral lobes.

ALYSIIDÆ

Alysia goniarcha sp. n. — Rufo-testaceous, the antennæ and central tooth of the mandibles black, the hind trochanters, femora, tibiæ and tarsi dark fuscous, the tibiæ almost black; the apical 13 joints of the antennæ are rufo-testaceous; the last 2 joints are of equal length and clearly longer than the preceding; there are 32 joints; the 3rd is about half the length of the 4th. Wings hyaline iridescent, the basal veins testaceous, the others and the stigma black. Smooth, shining; the parapsidal furrows deep, strongly crenulated, not reaching to the apex; which has a narrower smooth furrow in the centre. There is a narrow area down the centre of the metanotum; it is appendiculated at the base; then becomes gradually widened, then obliquely narrowed; then the 2 keels run straight to the apex; the base and sides are margined by stout keels, as is also the top of the apical slope; the keels are irregular, more or less curved. 1st abdominal segment closely striated; the rest smooth, the sides of the 1st are stoutly margined, the 4th and following appear to be keeled in the middle. ♀.

Length 5 mill.; terebra 5 mill.

Congo da Lemba, April (R. MAYNÉ).

Sheaths of ovipositor thin; the apical third sparsely fringed with long black hair.

Alysia maculiceps sp. n. — Rufo-testaceous, the antennæ, head, apex of the 2nd and the whole of the following segments of the abdomen black; the scape of antennæ and the mandibles rufo-testaceous, the mandibular teeth piceous red, the middle one blackish; palpi pale testaceous and covered with white pubescence; there is a brownish triangular, wide spot on the top of the inner orbits. Wings hyaline, highly iridescent, the stigma and nervures deep black. Legs covered with white pubescence, stiff, longish; the apical half of the hind tibiæ and the tarsi black. ♂.

Length 6 mill.

Dima, 23rd September (A. KOLLER).

Central area of metanotum shortly appendiculated; the basal keels running obliquely outerwardly to beyond the middle from this keel, 2 slightly thinner ones run to the apex, forming a longish

area, widened at the base; on the sides at the base is a large semi-circular area; below it, bordering the central area, 2 smaller ones, wider than long, rounded on the outside. Metapleuræ irregularly, obliquely reticulated. Basal segment of abdomen irregularly longitudinally striated. Antennæ 51-jointed, the flagellum densely covered with short stiff black hair.

ICHNEUMONINÆ.

Platylabus spilonotus sp. n. — Black, the clypeus whitish yellow, the yellow above inside, below extending outside the foveæ, the mark being thus wider below than above; the palpi similarly coloured; mandibles to near the apex testaceous, an oval mark in the centre of the mesonotum near the apex, the greater part of the scutellum, the lower part of the mesopleuræ from shortly below the middle, the mark narrowed at the base, the apex, narrowly below, more broadly, roundly above, the metapleuræ from the keel, the apex of metanotum, the mark continued from the top of the slope in the middle to the areola, the projection narrowed gradually above, pale rufous. The apex of the 2nd and 3rd abdominal segments narrowly whitish yellow. Legs black, the 4 front coxæ and trochanters whitish yellow, the underside of the 4 front femora lined with darker yellow, the tibiæ in front of a still darker yellow; the apex of the hind coxæ very narrowly, the underside of the trochanters yellow; the apical 4th of the basal joint of the hind tarsi and the whole of the others white. Wings hyaline, the stigma and nervures black, the areolet 4-angled, the recurrent nervure is received near the apex of the basal third; the disco-cubital nervure is broken by a minute stump; the nervellus is shortly postfurcal. Antennæ serrate, more strongly so towards the apex than in the centre. Hind legs longer than usual. ♂.

Length 17 mill.

Mayumba (DELEVAL).

Talimeda gen. nov. — Scutellum flat, not much raised above the mesonotum, the sides stoutly keeled from the base to the apex, which has a long, steep slope, margined by a narrower keel. Areola large, horse-shoeshaped, extending from the base to the top of the apical slope, the keel stronger on the rounded base; there are no other areæ, but the sides, including the basal slope, are margined by a keel, which curves shortly inwardly on the top of the apical slope, and is thickened there, but not forming a tooth; there are indications of 2 keels down the middle, top half of the apical slope; the spiracles are linear, about 3 times longer than wide.

Areolet 4-angled, narrowed in front, nervellus interstitial, the discocubital nervure broken by a minute stump. Abdomen long, narrow, about 3 times longer than the thorax; the 1st segment smooth through out, the 2nd and 3rd finely, closely punctured, the gastracoeli large, deep, oblique; there are 8 segments, the penultimate as long as the preceeding; the ventral keel extends to the apex of the 4th segment. Legs longish, slender, as are also antennæ. Clypeus not separated from the face, its apex broadly rounded. Labrum hidden. Upper tooth of mandibles much longer than lower and separated distinctly from it. Eyes large, malar space distinct. Temples only very slightly developed. Belongs to the *Platyuri*; and comes nearest to *Platylabus* from which it differs in the longer and more slenderly built abdomen, in the more slender and longer antennæ, in the more prominently raised scutellum and, more particularly, longish steep, margined apical slope, and in the longer, more slender legs. The type of the genus is a longer, more slenderly built insect than any of the *Platyuri* I have seen, the ovipositor too, being longer; the metanotal areæ are less clearly defined than usual in the *Ichneumonini*.

Talimeda pallidiceps sp. n. — Luteous, the face, clypeus, labrum, mandibles and the lower half of the outer orbits pallid yellow; the basal 5 joints of the antennæ rufous, the rest black, with a white band of 8 joints shortly beyond the middle; the apical 2 of the fore, 3 of the middle and 4 joints of the hind tarsi black; wings hyaline, the stigma testaceous, the nervures black; the areolet 5-angled, narrowed in front, the recurrent nervure received shortly behind the middle; the nervellus interstitial, the discocubital nervure broken by a minute stump. Base of metanotum in the middle irregularly rugosely punctured, the sides coarsely transversely striated, the apical slope more coarsely transversely striated; the sides somewhat strongly, the top in the middle more weakly keeled; there are no other keels and consequently no areæ. Propleuræ and upper half of the apex of mesopleuræ smooth, the rest finely, closely punctured, more strongly below than above; the metapleuræ are much more coarsely punctured all over. 1st abdominal segment smooth and shining; the second distinctly, the 3rd and 4th less strongly punctured, the apical smooth; the gastracoeli oblique, clearly defined, of equal width, aciculated in the middle. The apex of the ovipositor is black. ♀.

Length 17 mill.

Dima, 26th September (A. KOLLER).

The abdomen is nearly 3 times as long as the thorax, which is

as long as the basal 2 segments, united. Scutellum as long as it is wide at the base, the sides and apex with a raised, stout keel; the apex with a long, steep slope.

CRYPTINÆ.

Osprynchotes ruficollis sp. n. — Rufescent (perhaps discoloured) the pro- meso- and metathorax black; the legs of a pale rufescent colour, the basal two-thirds of the hind tibiæ white as are also the apical half of the basal joint of the hind tarsi and the whole of the others; wings hyaline, clearly tinged with violaceous, the costa and stigma rufo-testaceous, the nervures black. The antennæ are absent from the only example in the collection. ♀.

Length 20 mill.; terebra 6 mill.

Katanga (WEYNS).

Vertex depressed on either side of the ocelli, weakly, irregularly transversely striated. Mesonotum closely, distinctly punctured, except round the edges. Propleuræ smooth, with a few stout striæ on the lower apical part. Mesopleuræ strongly, irregularly striated, the striæ interlacing, weaker above. Metathorax closely, regularly, somewhat strongly reticulated. Malar space half the length of the eyes.

The only example appears to be discoloured, or the colours are not fully developed, probably the latter, for the wings appear not to have had time to expand fully. The species is very different from any of the known forms.

Osprynchotes ruficeps CAM., Annals of the South African Museum, V, 142.

Congo da Lemba, April (R. MAYNÉ).

Osprynchotes heros SCHLETT. — SCHLETTERER, Ann. d. l. Soc. Entom. de Belg., XXXV, 33.

Lukombe, 29th October (A. KOLLER). Busira, April (WÆLBROECK).

One of the specimens (both are females) is 26, the other 20 mill. in length. SCHLETTERER gives the length as 24 mill.

Mesostenus rufolineatus sp. n. — Black, a line along the furrows of mesonotum, a mark at the end of the middle lobe, longer than wide, transverse at the base and apex, and of equal width, at the end of the middle lobe, extending to the base of the scutellum, the scutellum and the parts surrounding it, the mesonotum from the keel to the apex, the apex of the propleuræ in the middle, the mark rounded at the base, the meso- and metapleuræ and the sterna, red; the clypeus, lower half of the face, base of

mandibles to near the middle, palpi, a large semi-circular mark opposite the ocelli, and the 7th to 13th joints of the antennæ, except above white. the 4 front legs with the coxæ, trochanters and femora red, the trochanters tinged with yellow, the femora darker in tint than the coxæ; the tibiæ of a darker red, blackish behind, the tarsi black; the spurs pale, the inner middle one black; hind legs black, the base of the coxæ narrowly above, their sides and under side red; the basal half of the 1st joint of the tarsi and the whole of the 2nd to 4th white; the calcarii black. Wings hyaline, very iridescent, the nervures and stigma black; the areolet of equal width, longer along the radius than along the transverse cubital nervures; recurrent nervure received shortly beyond the middle; the nervellus received on the innerside of the transverse basal φ .

Length 17 mill.; terebra 6 mill.

Dima, 23rd September (A. KOLLER).

Face and clypeus somewhat strongly punctured, the puncturation on the face interlacing into striæ; the front more weakly and not so closely punctured; the vertex weakly aciculated. Mesonotum closely punctured, more or less finely reticulated, the outer edge more weakly than the rest. Scutellum more strongly punctured, the apex with a gradually rounded slope; the sides stoutly keeled to shortly beyond the middle. Base of metanotum almost smooth, the rest finely, closely reticulated to the keel; the rest much more coarsely reticulated, the sides transversely striated; the apical slope is much more coarsely transversely striated and has a stout curved keel on the top. Upper part of propleuræ finely closely punctured, the rest from shortly above the middle stoutly, longitudinally striated. Mesopleuræ finely closely punctured, the raised apical part smooth, bordered behind by a stout striated band; the lower apical part is finely striated. Metapleuræ finely, closely striated, the striæ stronger at the base below. Basal segment of abdomen shining, the others opaque; there is a narrow white line on the apex of the 2nd segment and the 7th is entirely white; there is a distinct oval fovea in the centre of the base of the post-petiole, the sides of which are rather strongly deeply punctured.

Mesostenus Kolleri sp. n. — Black, about the apical half of the mesonotum, the mark shorter on the sides, the scutellum and the surrounding parts, metanotum, metapleuræ, about the apical two-thirds of the mesopleuræ, the mark forming an irregular triangular and the apical half of the post-petiole red; a longish, large triangle mark on the front and vertex at the ocelli; palpi, the apical third of the 2nd abdominal segment and the 6th and

7th white; the 4 front coxæ and trochanters white; the femora and tibiæ dull red, black above; the tarsi and spurs black; the hind coxæ red, paler below, a black mark on the sides at the apex; the trochanters of a duller red, tinged with yellow and marked with black; the hind femora black, broadly red at the base, the red on the basal third above, on the basal half below, the tibiæ black, with black spurs; the tarsi white; the basal and apical half of the apical joint black. 7th to 14th joints of the antennæ white, black above. Wings hyaline, the stigma black, fuscous in the centre, the nervures black; the areolet square. ♀.

Length 12 mill.; terebra 5 mill.

Dima, 23th September (A. KOLLER).

Face irregularly transversely wrinkled, the clypeus distinctly punctured; the front and vertex weakly punctured, the former with an irregular keel down the middle. Mesonotum closely, somewhat strongly punctured, more or less striated towards the apex, especially on the middle lobe. Scutellum somewhat strongly, but not closely punctured. Metanotum closely, rather strongly reticulated, more weakly at the base, more strongly at the apex; where the punctures run into striæ; there is only 1 keel, the basal. Propleuræ striated, the apex above with a large smooth oval space, the lower basal part smooth, the striæ above this roundly curved, Mesopleuræ finely striated, more strongly so at the apex above; the metapleuræ more strongly striated, especially at the metanotum. Petiole smooth, the post-petiole strongly punctured, sparsely so in the middle of the base; the 2nd segment is finely closely punctured.

Cryptaulax bifasciatus sp. n. — Black, the hind coxæ orange-red; the wings fuscous, the base clear hyaline to the nervellus and with a clear hyaline cloud extending from the parastigma to the base of the basal third of the radial cellule, the basal cloud on the outside becoming gradually irregularly widened from the costa to the hinder margin; the nervures and stigma black; the areolet small, narrowed in front, longer along the transverse cubital nervures than along the cubitus; the recurrent nervure received at the base of the apical third; the nervellus post-furcal, almost interstitial; the nervellus in hind wings broken near the top of the posterior third. The 10th to 12th antennal joints are white except above. Palpi black. ♀ and ♂.

Length 17 mill.; terebra 6 mill. ♀; ♂ 13 mill.

Mayumbe (DELEVAL); Dima, 22th September (A. KOLLER).

Face and clypeus densely covered with moderately long white pubescence, the thorax with denser darker pubescence, which is longer on the metanotum; the ventral surface sparsely covered with white hair. Head opaque, impunctate; there is a stout keel on the middle of the front, commencing near the ocelli and with a few oblique striæ on either side. Mesonotum closely, regularly reticulated; a smooth line, with a keel in the centre, in the middle of the basal half and there is a less clearly defined line on the sides. Scutellum coarsely transversely rugose. Metanotum closely transversely striated, the striæ closely waved. Pleuræ longitudinally striated, the base of the propleuræ smooth, the striæ more widely separated than they are on the mesopleuræ, on which the striæ are stronger and more widely separated on the upper third than on the rest; the metapleuræ more strongly obliquely striated, the striæ weaker at the base. Metanotum somewhat strongly transversely striated, the apical slope with the striæ closer, almost forming reticulations. Petiole smooth, the post-petiole strongly, but not closely punctured, the punctures in the centre of the base sparser; the 2nd and 3rd segments are more finely, and much more closely punctured, more strongly on the base than on the apex and almost forming reticulations; the 2nd segment is narrowed at the base.

This species may be known from the type of the genus, the Natal *C. ruficeps* CAM., by the latter having the head red, and the base of the wings black, there being only one hyaline cloud.

OPHIONINÆ

Ophion congoensis sp. n. — Pale reddish yellow, the antennæ more rufous in tint; the orbits pallid yellow; wings clear hyaline, very iridescent, the costa and stigma rufo-testaceous, the nervures black; the disco-cubital nervure without a stump, nervellus shortly post-furcal; the transverse cubital nervure hardly one fourth shorter than the recurrent. Ocelli black. Mesonotum finely, closely, but distinctly punctured; the pleuræ more strongly punctured; the upper basal half of the pro- and the lower half of the mesopleuræ more or less striated; the metapleuræ closely, more rugosely punctured. Temples short, obliquely roundly narrowed. Ovipositor short, scarcely reaching from the middle of the apical segment to its ventral surface. ♀.

Length 15 mill.

Congo da Lemba (MAYNÉ).

A slenderly built species. Face covered with a white pile, almost smooth, only weakly sparsely microscopically punctured. Clypeus bare, smooth and shining.

Enicospilus bicoloratus sp. n. — Yellowish-red, the apex of the 4th and the following segments of the abdomen black, the antennæ slightly darker in colour, especially towards the apex, somewhat longer than the body, apex of mandibles black; wings hyaline, the nervures blackish, the costa and stigma testaceous; there are 2 horny points, the basal large, bell-shaped, the other small, pale, placed at shortly beyond the middle of the curved line, which becomes dilated towards the apex. ♂.

Length 13 mill.

Lukombe, 5th October (KOLLER).

Smooth, shining, sparsely covered with a white pile; the metanotum behind the keel smooth, the rest finely irregularly striated, the striae on the sides of the basal half stronger and obliquely curved. Mesopleuræ finely, closely striated, except at the base and apex above, the striae distinctly stronger on the lower half. Metapleuræ coarsely aciculated. Ocelli black, bordered with red. Nervellus not quite interstitial, being received shortly behind the transverse basal nervure; transverse cubital about one third of the length of the recurrent.

Enicospilus lomelaensis sp. n. — Pale yellowish red, the head paler, the apical segments of the abdomen darker coloured; the hinder eye orbits broadly whitish yellow; wings hyaline, the stigma testaceous, the nervures black; the only horny point is triangular; the transverse cubital nervure not much more than one third of the length of the recurrent; nervellus interstitial. Base of metanotum smooth; there is a short longitudinal keel at the base of the apical part, the part on either side of the keel being irregularly obliquely striated; the rest is closely, irregularly reticulated, more strongly at the apex than at the base; the metapleuræ regularly, closely obliquely striated. Mesopleuræ closely striated, the striae interlacing and forming at the base fine reticulations. ♀.

Length 14 mill.

Lomela Gombe (WÆLBROECK), 6th October.

Antennæ as long as the body. Hinder orbits distinctly obliquely narrowed, rounded. Mesonotum closely punctured to near the apex. Scutellum more sparsely punctured, smooth at the apex.

Anomalon leucostomum sp. n. — Black, the 3rd, 4th and 5th and the lower side of the 6th abdominal segments dark ferruginous, the face, clypeus, mandibles except the teeth, a line on the lower inner orbits, not extended much above the antennæ, a line on the lower three-fourths of the outer orbits, the line obliquely,

gradually widened below and extended on to the malar space, the palpi and the under side of the antennal scape yellowish white; wings hyaline, the nervures and stigma black; the recurrent nervure received about one fourth of the length of the transverse cubital beyond the latter; nervellus interstitial. ♀.

Length 15 mill.

Head and thorax closely strongly punctured; the front irregularly transversely striated; a stout keel down the middle from the ocelli to the antennæ. The central part of the mesonotum is raised slightly above the lateral, especially at the apex, where it is more rugosely punctured than at the base; the sides are less strongly punctured. Scutellum reticulated. Metanotum more strongly and irregularly reticulated; the base with 3 areæ, the central longer and more shining than the lateral, which have the apex rounder and are about twice wider than long; the apical slope is oblique and has the sides margined. The ovipositor is as long as the hind metatarsus.

Banana (D^r ETIENNE).

Campoplex Maynéi sp. n. — Black, densely covered with white pubescence, that on the face denser and more silvery than elsewhere; mandibles yellowish fulvous, the teeth black; palpi fulvous testaceous; 4 front legs rufo-testaceous, their coxæ black, the trochanters yellowish; the hind legs black, the tibiæ and tarsi dark rufo-testaceous; the apex of the 2nd abdominal segment narrowly, a band in the middle of the 3rd, narrower than the black basal part, but wider than the apical, and the whole of the other segments ferruginous; the 2nd ventral segment yellow; wings hyaline, the nervures and stigma black; the areolet with the pedicle longer than the nervures; the 1st shorter than the 2nd, straight, the 2nd roundly curved; the recurrent nervure received in the apex of the areolet, almost interstitial; nervellus interstitial but received outside the transverse basal. ♂.

Length 8 mill.

Congo da Lemba, April (R. MAYNÉ).

Face opaque, punctured, but not closely nor strongly; the clypeus more strongly and regularly punctured, the punctures clearly separated. Thorax finely rugosely punctured, the metathorax more strongly than the rest, the basal half of the areola rugose, almost reticulated, the apical more finely rugose, with 2 stout oblique keels in the centre; the lateral areæ closely rugosely reticulated; posterior median area coarsely, irregularly

transversely striated; the lateral apical areae more finely, closely and obliquely striated; the spiracular closely rugosely punctured, and sparsely striated. Metanotum regularly areolated, the basal area distinct, of equal width throughout, one half longer than wide; the areola twice longer than wide; the base rounded, the apex transverse. Except at the apex above, the propleurae are striated, the striae more or less roundly curved. The mesopleural depression is striated; the striae moderately strong, oblique and clearly separated.

PIMPLINÆ

Delaulax ruficollis sp. n. — Black, the head except the upper central part of the front, the vertex except narrowly at the eyes and the occiput and the pleurae red; the sides of the thorax and metapleurae obscurely tinged with red, the pro- and meso-sternum, the fore legs, middle coxae, trochanters and femora red; underside of antennal scape dull red; the flagellum is absent from the only example; palpi and mandibles, except the teeth, red; the face is tinged with yellow. Wings uniformly dark fuscous violaceous; the areolet large, 4-angled, the nervures uniting in front, but not forming a pedicle; the recurrent nervure received shortly beyond the middle; nervellus interstitial, but received on the outside of the nervure; disco-cubital nervure broken by a distinct stump; the nervellus in hind wings broken near the middle. Clypeus separated from the face by a fine furrow, its apex with a semicircular incision. Head and thorax smooth and shining. Basal 5 segments of abdomen closely, somewhat strongly punctured and more or less reticulated and striated; the basal with a smooth area in the centre of the basal half; the basal third narrow, the apical part becoming gradually widened towards the apex; the base of the 6th has a wide punctured band, widest in the middle; the 7th is entirely smooth. Sheath of ovipositor densely covered with stiff black hair. ♀.

Length 16 mill.; terebra 12 mill.

Lukombe, 9th October (A. KOLLER).

There are large raised, rounded tubercles on the sides of the 3rd, 4th and 5th segments, which are more shining than the rest of the segments. The wings appear larger than usual; there is a large bulla near the centre of the disco-cubital nervure at the apex of the stump, 2, almost united, on the fore part of the 2nd transverse cubital and 2 on the recurrent nervure.

Only the ♂ of my genus *Delaulax* has been described (Annals of the South African Museum, V, III). The ♀ I now refer to it

has the abdominal segments shorter compared with the width and, more particularly, the 1st, which, in *D. rufus* CAM. ♂, is twice longer than wide, the 2nd is also longer than wide, while in *D. ruficollis* it is wider than long; the latter, however, has the large fuscous wings with the nervellus in hind wings broken in the middle, the rufous colouration, but not so extended and the small round metathoracic spiracles and the semicircular emargination on the clypeus.

Lissonata leucostoma sp. n. — Black, the thorax red, the sterna black, the black extending on to the pleuræ, that on the mesopleuræ roundly dilated on the basal half, that on the metapleuræ broadly dilated on the apical half; the clypeus except above, mandibles except at apex, palpi, the 1st segment of abdomen to near the middle, about the basal third of the 2nd, more than the basal half of the 3rd, about the basal fourth of the 4th, the line rounded at the apex, and the basal 4 ventral segments, white; antennæ black, the apical joints fuscous below, the under side of the scape and joints 12-14 white; four front legs white, the femora tinged with fuscous; the hinder black, the apex of coxæ, apex of basal joint of trochanters, basal fourth of hind tibiæ, 2nd joint of hind tarsi and the 3rd to near the middle, white; the apex of hind spurs fuscous; wings clear hyaline, the apex from near the middle of the apical abscissa of radius dark fuscous, paler at the extreme apex; the nervures and stigma black; nervellus shortly postfurcal; the areolet with the pedicle half the length of the transverse cubital nervures; the 1st of the latter is straight, oblique, the 2nd roundly curved; the recurrent is received at the apex of the areolet. ♂.

Length 8 mill.

Congo de Lemba, April (R. MAYNÉ).

Front and vertex smooth, the former with 2 large foveæ or depressions, rounded above; the face distinctly, but not very closely punctured more closely on the sides than in the middle. Thorax some what strongly punctured, the metanotum more closely and strongly than the rest, and more densely covered with white pubescence; the apex of the scutellum and the centre of the mesopleuræ smooth. Pubescence dense and white. Hind tibiæ spinose.

Theronia nigrinervis sp. n. — Luteous, the middle of the front and vertex and the 3rd and following segments of the abdomen tinged distinctly with orange; antennal scape yellow, black above, with 2 yellow, longish triangular marks on the sides, the basal the

larger; the flagellum brownish red, black above. Mandibular teeth black. Mesonotum with 3 distinct black lines, narrower than the central yellow part and slightly narrower than the base of the outer; the central line is the longer, it reaching to the scutellum, where it is clearly narrowed, the narrowed part dilated at the apex. There are 3 areæ on the metanotum; the central becomes widened at the top of the apical scape, the keels running there on to the outer edge; the lateral basal areæ are as long as they are wide at the base; the basal half of the inner keel is almost straight, the lower obliquely sloped downwards towards the outer side; the outer keel is rounded, at the base, the apex obliquely sloped inwardly, the outer side being thus longer than the inner, 1st abdominal segment about twice longer than it is wide at the apex; it becomes gradually, slightly wider from the base to the apex, the sides of the centre of the basal half are margined; 2nd not quite so long laterally as it is wide at the apex; the others are wider than long; there is a shallow wide depression across the middle of the 2nd and 3rd segments, that on the 3rd not continuous. Tarsi more rufous in tint than the tibiæ; the hinder of darker colour, almost black. Sheaths of ovipositor slender, black, fuscous at the base below; they are slightly longer than the hind tarsi. ♀.

Length 12 mill.; ovipositor 3 mill.

Lukombe, 29th October (A. KOLLER).

Temples broadly, roundly narrowed. Face wider than long, smooth, the middle depressed below, not separated from the clypeus. Wings clear hyaline, the nervures deep black, the stigma dark testaceous; the areolet oblique, longer than wide, of equal width, receiving the recurrent nervure at the angle; the recurrent is broadly rounded in front and bears 2 wide bulke; nervellus post-furcal. Parapsidal furrows only indistinctly indicated at the base. Scutellum stoutly keeled laterally to near the middle, the keels becoming weaker towards the apex. Abdomen twice the length of the thorax. The lower part of the scape, face and clypeus closely covered with longish white pubescence, the sides of metanotum more sparsely with longer white hair; the rest of the body almost bare; the tibiæ and tarsi have a microscopic white pile.

Allied to *I. tricittata* KRIEGER from Sierra Leone; only the ♂ of that species is known. In the present species the basal central part of the metanotum, if closed at the apex, would form a square; the lateral at the apex below do not form a sharp angle, but are rounded. The eyes converge slightly, but distinctly below so that the face is narrower below than above.

POMPILIDÆ

Salius cabraensis sp. n. — Black, densely covered with a bluish purplish pile, probably all over with fresh examples, the scape and pedicle of the antennæ dark fulvous, broadly black above, the 3rd joint fulvous, the other joints are absent; the clypeus, mandibles and labrum dark rufous; wings uniformly dark fuscous violaceous, the stigma and nervures black, the 3rd abscissa of radius not quite so long as the 1st and about half the length of the 2nd; the 4th longer than the latter and curved up at the apex; nervellus distinctly post-furcal; the 1st recurrent nervure received at the base of the apical fourth, the 2nd very shortly behind the middle and roundly curved outwardly, nervellus in hind wings shortly antefurcal. The long spur of the hind tibiæ about one third of the length of the metatarsus; claws with a short broad tooth truncated at the apex; tibiæ and tarsi shortly spinose, the latter more thickly than the former, the basal 3 joints of the hinder densely pilose. ♂.

Length 17 mill.

The sides of prothorax are broadly rounded; the apex is also broadly rounded, not angled. Sides of metanotum broadly, roundly tuberculate at the spiracles; the apical half is irregularly striated. The eyes converge distinctly below; on the lower three-fourths of the inner orbits they are narrowly lined with brown. There is a distinctly defined furrow on the 2nd ventral segment; the genital armature is covered with long black hair. There is no horny point in the discoidal cellule.

Mayumbe (CABRA).

Pompilus sepulchralis SMITH (Descrip. of New Species of Hymen., 145, 17) from Natal appears to be an allied species, but the description, with its lack of structural details, does not enable one to identify the species; the abdomen is said to have a green tinge.

x.

Salius abdominalis SMITH (*Pompilus abdominalis* SMITH. Descr. of New Species of Hymen., 141, Congo).

A specimen from Kitobola (ROVERE) is, I believe, the ♂ of the above species. It is 10 mill. long, has the apex of the clypeus depressed and broadly rounded; the eyes converge distinctly above; the hinder ocelli are separated from each other by a distinctly less distance than they are from the eyes; the apex of the pronotum is bluntly angled; the metanotum transversely striated, its apex transverse, margined and projecting at the outer edges. The 1st abscissa about one quarter shorter than the 2nd, which is about one fourth shorter than the 3rd, the latter is about the same

length as the 4th; the 2nd recurrent nervure is received not far from the apex of the cellule; nervellus in hind wings shortly ante-furcal. The long spur of the hind tibiae is more than half the length of the metatarsus. The 3rd joint of the antennae is not one quarter longer than the 4th.

Pompilus lukombensis sp. n. — Black, covered with a pruinose blue bloom; the antennae, except the upper side of the scape, which is black, and the lower side, which is yellow, and the legs, except the coxae and trochanters, which are black, red; the palpi of a lighter red; a line on the apex of pronotum, and the apical 2 segments of the abdomen whitish yellow; the tibial and tarsal spines black as are also the apices of the tarsal joints; wings fulvous hyaline, the apex from the end of the radius fuscous violaceous, the stigma and nervures fulvous; the 3rd abscissa of radius about one fourth of the length of the 2nd, and about half the length of the 1st; the 2nd recurrent nervure is received in the middle of the cellule; the nervellus interstitial; in the hind wings it is post-furcal. ♂.

Length 11 mill.

Lukombe, 29th October (A. KOLLER).

Densely covered with a white pile. Clypeus wider than long, its apex transverse. The postscutellar region and the apex of metanotum broadly, on the sides densely covered with white pubescence. Apex of pronotum broadly rounded, not angled. The hinder ocelli are separated from each other by a distinctly greater distance than they are from the eyes. Antennae short, thick, joints 6-10 dilated below.

Homonotus purpureo-pruinosis sp. n. — Black, covered with a distinct purple blume, the head, prothorax, mesonotum, scutellum, almost the apical half of the post-scutellum, the line dilated in the middle at the base and the tegulae, red; the face broadly in the middle and a semicircular mark in the middle of the clypeus above, black; mandibles red, the apex narrowly lined with black; wings uniformly dark fuscous violaceous, the stigma and nervures black; the 3rd abscissa of radius shorter than the 1st by about one half, and about one sixth of the length of the 2nd, which is of the same length as the 4th; the nervellus interstitial; the 1st transverse cubital nervure broadly roundly curved, the 2nd straight, oblique, the 3rd obliquely sloped towards the radius the slope rounded below, the 1st recurrent nervure received near the apex, the 2nd very shortly beyond the middle of the cellule;

the anal nervure in the hind wings received very shortly behind the cubitus. ♀.

Length 7 mill.

Dima, 24th September (A. KOLLER).

Head seen from the front as long as it is broad; the front projecting at the antennæ, its apex transverse; the apex of clypeus broadly rounded. Hind ocelli separated from each other by a slightly greater distance than they are from the eyes. Malar space as long as the antennal pedicle. Pronotum as long as the head from the antennæ to the end of the vertex and shorter than the mesonotum and scutellum united; metanotum longer than the mesonotum, its apex broadly, roundly incised; the sides above bluntly triangular and with a small triangular tooth below it; its base above is free from the part beyond it, being raised. The 2nd (3rd) abdominal ventral segment has a shallow, curved impression. The eyes do not converge much above. There are 2 fine furrows on the basal half of the mesonotum. The clypeus form a semicircle. The long spur of hind tibiæ half the length of metatarsus.

Comes near to *H. sagax* KOHL, which may be known from it by the apex of the clypeus being transverse with the sides straight and oblique. The species belongs to KOHL's group 6. (Vérh. z. b. Ges. Wien, 1886, 310)

The form of colourations shown by it is common with the African species of *Homonotus*.

Agenia erythrotrichia sp. n. — Black, covered with silvery pile; the oral hair-bundle rufous; wings hyaline, the stigma and nervures black, a cloud across the transverse median and transverse basal nervure, the outer twice the width of the inner part, the edges irregular; a larger cloud beyond it, filling the basal two-thirds of the radial cellule, the apex there of the cloud incised in the middle; it extends below, filling the 2nd cubital cellule, extending into the 1st, filling the angle formed by the 1st transverse cubital nervure and the basal abscissa of the radius, more than the basal half of the 3rd the cloud becoming obliquely widened from the radius to the cubitus at the apex, filling the apical two-thirds of the 1st discoidal and extending outside the recurrent nervure for about one fourth of the width of the inner part and very faintly beyond the anal nervure; the nervellus in the hind wings ante-furcal. ♀.

Length 10 mill.

Dima, 26th September (A. KOLLER).

Eyes slightly converging above; the hinder ocelli separated from the eyes by a slightly greater distance than they are from each

other. Apex of clypeus broadly rounded. Metanotum alutaceous, the sides of the apex weakly striated. The long spur of the hinder tibiæ one third of the length of the metatarsus and as long as the 2nd joint; the tarsi are closely, the tibiæ sparsely spinose. The apical 3 abscissæ of the radius are almost of the same length; the 1st recurrent nervure is received very shortly beyond the middle, the 2nd shortly beyond the apex of the basal fourth of the cellule.

This species is, as indicated by the oral hair bundle, an *Agenia sensu str.*, a genus which appears to possess much fewer species than the very closely allied *Pseudagenia*.

Pseudagenia Schoutedeni sp. n. — Black, covered with a white pile; the wings hyaline, the stigma and nervures black, a fuscous cloud on either side of the transverse basal and transverse median nervures, more broadly developed on the outer than on the innerside of the former and broader on the nervellus, where it is of equal width on both sides; the 2nd abscissa of the radius is a little longer than the 3rd, which, again, is slightly longer than the 4th; both the recurrent nervures are received shortly behind the middle, the 2nd at a greater distance than the 1st; the cloud in the radial cellule does not touch the radius, or, at least, is fainter there; the nervellus in fore wings widely post —, in hind wings widely antefurcal. 3rd antennal joint one fourth longer than the 4th. Apex of clypeus broadly rounded. Hinder ocelli separated from each other by a less distance than they are from the eyes. Apex of pronotum bluntly angled in the middle. Tibiæ very sparsely, the tarsi thickly spinose. ♀.

Length 13 mill.

Dima, 26th September (A KOLLER).

The eyes slightly converge above; there is a shallow, indistinct furrow down the middle of the front. Except at the extreme base the metanotum is closely, irregularly transversely striated. The long spur of the hind tibiæ is not one third of the length of the metatarsus and as long as the 2nd tarsal joint. The 2nd (pedicle) and 3rd antennal joints are, united, nearly as long as the 4th and 5th united.

Pseudagenia longiventris sp. n. — Black, covered with a white pile, the wings hyaline, a fuscous cloud along the transverse median and transverse basal nervures, broader along the former than along the latter, and broader on the innerside of the former than on the outer, a cloud filling slightly more than the basal third of the radial cellule, the apex of the 1st cubital

narrowly in front, the 2nd, except for a triangle in the hinder basal half, a triangle in the base of the 3rd, extending slightly beyond the 2nd recurrent nervure; and the apical three-fourths of the discoidal cellule between the apex of the 1st recurrent and the 2nd, it being fainter at the apex, and there is a faint cloud in the apex of the fore wings; the stigma and nervures are black, the nervellus in the fore wings post- in the hinder antefurcal; the 2nd abscissa of the radius twice the length of the 1st and about half the length of the 3rd, the 1st recurrent nervure received beyond the middle, the 2nd near the base of the basal fourth of the cellule. Pygidium white. ♂.

Length 12 mill.

Loföi (VERDICK).

Eyes distinctly converging above; the hinder ocelli separated from each other by a less distance than they are from the eyes. The apex of clypeus broadly rounded, the apex of pronotum bluntly angled in the middle; the apical slope of metanotum striated. Abdomen as long as the head and thorax imited.

A longer, narrowish species than usual.

SPHEGIDÆ

Sphex (ParaspheX) curvilineatus sp. n. — Black, the dilated apical part of the petiole, the 2nd abdominal segment except for a large semicircular mark, extending from the apex to shortly behind the middle and laterally to the outer edges, a triangle on the base of the 3rd below, and its ventral side, red; the apices of segments 1-6 with narrow pale ivory yellow lines, that on the 1st distinctly, on the 2nd dilated, that on the 2nd and 3rd clearly curved; the hair on head and thorax long, dense and whitish cinereous; wings hyaline, the stigma and nervures black; the 3rd abscissa of radius as long as the 1st and fully half the length of the 2nd; the 1st recurrent nervure is received near the apex of the basal third, further from it than is the 2nd from the 2nd transverse cubital. The few tibial and the more numerous tarsal spines are white; the long spur of the hind tibiæ is for the greater part rufous. Abdominal petiole long and curved, as long as the hind coxæ, trochanters and the basal third of the femora united, and nearly as long as the basal 3 joints of the hind tarsi; it is slender; the dilated apex forms a broad triangle. ♂.

Length 13 mill.

Lukombe, 12th October (A. KOLLER).

Eyes distinctly converging below, the hinder ocelli separated from each other by the same distance as they are from the eyes; they are distinctly, but very closely punctured; a narrow furrow, widened above, runs down its centre; apex of clypeus not quite transverse. Pronotum broadly rounded, closely punctured, the mesonotum more strongly, but not so closely punctured; the scutellum is more weakly and closely punctured on the basal half, the metanotum is as strongly, but much more closely punctured and with a shallow, indistinct furrow down its centre, this furrow becoming widened towards the end. Pleuræ roughly but not strongly or closely punctured.

Comes near to *S. albisectus* LEP. and *S. Sjöstedtii* CAM.; it has the black abdominal petiole of the latter; *Sphex Sjöstedtii* differs in having only the dilated apical part of the abdominal petiole red, the 2nd segment being entirely black; 2nd and 3rd white bands are not curved and the 2nd and following ventral segments are black; the 2nd and 3rd transverse cubital nervures are straight, not roundly curved, and the apical abscissa of the radius is straight, oblique, not broadly rounded. There are 3 stout teeth on the claws.

It is quite possible that a good series of specimens from various parts of Africa would show that *S. albisectus*, *S. Sjöstedtii* and *S. curvilineatus*, were forms of one species.

The specimens I have before me seem easily enough separated, but not by very strong or distinctive characters; in size and form they are very similar.

Ammophila ferrugineipes LEP., Hist. Nat. d. Ins. Hymén., III, 383; GERSTAECKER Peter's Reise nach Mossamb., V, 481; GRIBODO, Rassegna degl' Imenotteri racc. Nel Mozamb d. Cav. Fornasini, 1894, 134; SMITH, Cat. Hym. Ins. IV, 212.

A species widely distributed in the Southern Palaearctic and Ethiopian Zoological Regions. It varies considerably in colouration, *c. g.*, the prothorax may be entirely black or red; the antennal scape may be black or red and the amount of red on the abdomen and legs varies.

Lukombe, 5th to 20th October (A. KOLLER).

Ammophila lukombensis sp. n. — Black, the antennal scape, the greater part of the basal 3 joints of the flagellum, apex of clypeus, base of mandibles to the base of the teeth, occiput, outer eye-orbits, prothorax, except the base of pronotum and prosternum, mesopleuræ from the tubercles to the apex, apex of metapleuræ broadly, the coxæ, more or less of the underside of the

femora and the tibiæ more or less broadly, red ; wings hyaline, the stigma and nervures black ; the 3rd abscissa of the radius one fourth of the length of the 2nd, broadly roundly curved, not converging much ; the 2nd obliquely bent outwardly behind. Mesonotum strongly, irregularly striated (but not closely) on the basal two-thirds ; the metanotum more finely and closely striated. Scutellum irregularly, longitudinally striated. ♀.

Length 21 mill.

Lukombe, 5th October (A. KOLLER).

Densely covered with a white pile, the face and clypeus also with silvery hair. There is a short depression on either side of the apex of the clypeus making it appear almost trituberculate. Prothorax smooth. Post-scutellum not striated, a stout keel down its centre. The 3rd antennal joint is almost as long as the following 2 united. Tarsal spines black ; there is a dense line of pale golden pubescence on the basal half of metatarsus. The pubescence is dense, giving the insect a greyish appearance. The eyes converge very slightly above ; the ocelli are in an equilateral triangle, and the hinder are separated from the eyes by a little greater distance than they are from each other.

Trypoxylon marginifrons sp. n. — Black, covered with silvery pubescence, the pile on the apical abdominal segments tinged with fulvous, the mandibles rufo-testaceous, the teeth black ; wings hyaline, the basal abscissa of the radius straight, oblique, the apical more than twice its length, roundly curved. Front at the antennæ margined by a wide keel, dilated in the middle. Metanotal furrow wide, and at the base shallow, of equal width, the apical part with the sides sloping obliquely and with a furrow in the centre ; the basal part is bordered by a narrower oblique furrow ; except the part outside this furrow the metanotum is striated. A smooth line (it can hardly be called a furrow) widened below, runs from the ocelli to near the antennal transverse keel. Apex of clypeus broadly rounded. Mesonotum shining, distinctly, not very closely, punctured ; a narrow furrow on either side of its middle. Apex of pronotum roundly raised, trilobate, the central lobe small and more like a tubercle than the lateral. ♀.

Length 12 mill.

Congo da Lemba, April (R. MAYNÉ).

The apex of the cubitus is thickened and rounded. Tarsal spines pale. The pubescence on the pluræ long and dense. The abdomen is rather short, the basal 4 segments united being not much longer than the head and thorax united ; the 1st segment is distinctly, the

2nd less strongly nodose. The eyes at the antennæ are separated by almost the same distance as they are at the vertex. The 1st abdominal segment is clearly longer than the 2nd and 3rd united.

Characteristic of this species is the transverse trilobate keel over the antennæ.

Stizus pulchritinctus sp. n. — Black, shining, the abdomen tinted with metallic violaceous and blue; the antennal scape, except above, face, a line on the inner orbits from the face to slightly above the antennal scape when pressed against the front, face, clypeus, labrum, base of mandibles, a line on the apex of the pronotum reaching to the tubercles, the tubercles, a minute spot on sides of mesonotum, tegulæ, scutellar keels, a triangular spot on the sides of scutellum, longer than it is wide at the apex, the narrowed end at the base, the greater part of the post-scutellum, the sides of the apical slope of the metanotum, including the teeth, a line on the apices of the basal 5 abdominal segments, that on the 1st, much wider than the others and bilobate, the 2nd line trilobate, a line on the apex of the 2nd ventral and narrower lines, interrupted in the middle, on the following 3, pale lemon-yellow, as are also the greater part of the fore femora, the tibiæ, except for a longish line on the inner side, that on the hinder all round the apex and the greater part of the hind tarsi, black. Wings hyaline, the stigma and nervures black, the 2nd cubital cellule almost appendiculated, the 1st transverse cubital nervure in front straight, oblique from shortly below the middle, the 2nd broadly rounded. Flagellum of antennæ orange pale yellow, black above. ♂.

Length 9 mill.

Lukombe, 7th October (A. KOLLER).

The incision on the sides of metanotum large, almost semicircular, placed on the top half, the teeth large, bluntly triangular. Body covered, but not densely, with a grey pile, smooth, the base of the mesonotum from near to the middle, closely, irregularly longitudinally striated. The antennæ are almost double the distance from each other as they are from the eyes. Clypeus above bounded by a narrow curved furrow; as long as it is wide below. Eyes strongly converging below.

This species has the form and size of *S. Braunsii* KOHL and has the incision on the sides of the metanotum pretty much as in *S. tridens*, being wide and rounded. It is more slenderly built than a Cape ♂ of what I make out to be *S. Braunsii*, that has the body and legs much more densely haired and with the pile longer; it has also the yellow markings more extended and wider all over,

e. g. there is a broad yellow line on the sides of the mesonotum, in the present species only a minute line or mark, the legs and, especially the 4 anterior, are almost entirely yellow, the femora and tibiæ being only slightly lined with black above and not at all below. The metanotal incision is pretty much as in HANDLIRSCH's figure of *S. polychromus* ♀; cf. Verh. z.-b. Ges. Wien, 1898, p. 474, f. 13 It is much wider and longer than in the figure of *Braunsii* ♂, being more as in the ♀ of that species Compared with *S. Braunsii* the abdomen is longer and narrower and the 2nd cubital cellule is more distinctly appendiculated.
